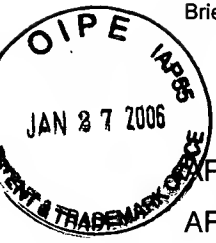


AT/ JMW



UNITED STATES PATENT AND TRADEMARK OFFICE

APPELLANT(S) Peter J. Armbruster et al. GROUP ART UNIT: 2686
APPLN. NO.: 09/997,515 EXAMINER: Randy Peaches
FILED: November 29, 2001 Confirmation No. 5017
TITLE: ROAMING SERVICES USING HOME LOCATION REGISTER

BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please consider the following Brief on Appeal for the above identified patent application assigned to Motorola, Inc.

I. REAL PARTY IN INTEREST

The subject application is assigned to Motorola, Inc., the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

To Appellants' knowledge, there are no related appeals or interferences.

III. STATUS OF CLAIMS

1. Claims 2-3, 5-8, 11-13, 15-17 and 21 stand rejected under 35 U.S.C. 102(e) as being anticipated by Gentry et al. (U.S. Patent No. 6,453,162).
2. Claims 4 and 14 stand rejected under 35 U.S.C. 103 as being unpatentable over Gentry in view of Torabi (U.S. Patent No. 6,754,482).

3. Claims 9-10 and 18-19 stand rejected under 35 U.S.C. 103 as being unpatentable over Gentry in view of well known prior art.
4. Claim 1 and 20 are cancelled.

IV. STATUS OF AMENDMENTS FILED SUBSEQUENT TO FINAL REJECTION

No responses were filed subsequent to final rejection.

V. SUMMARY OF INVENTION

The present invention pertains to distributed home location register personal to a user (each user has their own HLR) that authorizes roaming services agreements electronically for a user in a foreign network.

VI. ISSUES

- (1) Whether claims 2-3, 5-8, 11-13, 15-17 and 21 are anticipated by Gentry et al. under 35 U.S.C. 102(e).
- (2) Whether claims 4 and 14 are obvious over Gentry in view of Torabi.
- (3) Whether claims 9-10 and 18-19 are obvious over Gentry in view of well known prior art.

VII. GROUPING OF CLAIMS

Appellants offer no other grouping of claims.

VIII. ARGUMENTS

35 U.S.C. § 102(e)

Claims 2-3, 5-8, 11-13, 15-17 and 21 stand rejected under 35 U.S.C. §102(e) as being anticipated by Gentry, U.S. Pat. No. 6,453,162 (hereinafter “Gentry”). Appellants’ respectfully traverses this rejection.

Gentry discloses a system and method for web-based provisioning (i.e., setting parameters for) a **single** (see Gentry Figures 1 and 2) home location register (“HLR”) in a wireless network. In other words, the Gentry system allows a user to modify his subscriber profile or preferences, which are stored and maintained at the **single** HLR provided by the telecommunications provider, using a personal computer that is connected to the Internet. The goal of the Gentry system is to eliminate the need to have a service provider employee enter subscriber profile/preference changes on behalf of the subscriber [see Gentry’s Summary section]. The **single** HLR taught by Gentry is consistent with the use of a single HLR in the prior art.

FIG. 1 and FIG. 2 of Gentry depict a **single HLR**, which is intended to represent the primary HLR that services the mobile device 12 (see FIG. 1). In FIG. 1, the service area 10 is the home or local service area for the mobile device 12, while the service area 16 is a roaming service area for the mobile device 12. When the mobile device 12 is within the roaming service area 16, the roaming system MTSO 22 communicates with the roaming system VLR 20 to obtain the subscriber services for the user of the mobile device 12. In turn, the roaming system VLR 20 communicates with the home/local system HLR 17 to obtain the subscriber services for the user of the mobile device 12. This conventional operation is described by Gentry beginning at Column 4, Line 51. Notably, only **one** HLR 17 is contemplated by the Gentry system.

FIG. 2 of Gentry illustrates the web-enabled version that represents the primary focus of the Gentry disclosure. Using the system of FIG. 2, a user, via his personal computer 48, accesses an appropriate web page (provided by web server 44) that allows him to monitor, view, and change his subscriber services, preferences, and settings at the **single telecommunications provider’s HLR** via the Internet 46. In this regard, *the personal computer 48 merely facilitates user communication with the HLR 17 in lieu of having a service provider employee access the HLR 17 on the user’s behalf.* Gentry does NOT teach or suggest, as the Examiner erroneously asserts, that the personal computer is a DHLR. (See column 5 lines 20-27). Gentry discloses the manner in which the IP-based data is converted for use with the IS-41 network 40, which is necessary for compatibility with the HLR 17. Importantly, the HLR 17 depicted in FIG. 2

represents the same home/local HLR 17 depicted in FIG. 1. *In other words, Gentry neither teaches nor suggests the use of a network HLR in conjunction with a distributed HLR ("DHLR") that is personal to the user as claimed by Appellants.*

Appellants' respectfully disagrees with the Examiner's characterization of Gentry, and request reconsideration in view of these remarks. For example, the Examiner contends that Gentry's personal computer 48 and web server 44 are akin to the DHLR recited in Appellant's claims. The Examiner cited to Gentry at Column 5, Lines 22-42 and Column 6, Lines 24-27 in support of this conclusion. Appellant submits that this characterization of Gentry is unreasonable and unsupported by the Gentry specification. In particular, Gentry's personal computer 48 and web server 44 are simply means for accessing the only HLR contemplated and taught by the Gentry system, namely, HLR 17. (See column 5, lines 20-27). Indeed, the stated goal of Gentry is to enable the subscriber to communicate with the HLR 17 in a manner that eliminates the need of a "middle man." Gentry fails to disclose or suggest that recited in Appellant's claims, namely, the deployment of another HLR (the DHLR) that includes data for authorizing services in a foreign network for a user of the home network, where the DHLR is personal to a user.

The Examiner states that Gentry's foreign network 16 includes a VLR 20 for determining services that are needed by a user in the foreign network. Although this statement may be generally accurate, Gentry fails to teach or suggest additional limitations recited in Appellant's claims. In particular, Gentry neither teaches nor suggests a foreign VLR coupled to a DHLR (in the home network) via the communication network. Indeed, even assuming, for the sake of argument, that Gentry's personal computer 48 is akin to the recited DHLR (which it is not), Gentry's foreign VLR 20 is NOT coupled to the user's personal computer 48. As mentioned above, Gentry merely describes the conventional technique whereby the foreign VLR 20 communicates with the home network HLR 17.

Regarding claims 11 and 21, Gentry neither teaches nor suggests a DHLR directly coupled to the user via a mobile device. Even assuming, for the sake of argument, that Gentry's personal computer 48 is akin to the recited DHLR (which it is not for the above stated reasons), Gentry's personal computer 48 is only utilized to communicate with the web server 44, the wireless data server 42, or the HLR 17. In other words, Gentry's personal computer 48 does not communicate with the mobile subscriber 12.

In the Response to Arguments in the 11/02/05 Office Action, the Examiner states that he is “taking the broadest reasonable interpretation of the claimed language at hand.” It is unclear to the Appellants’ how the broadest interpretation of the single HLR and personal computer used to communicate with the single HLR taught by Gentry can be morphed into the claimed limitations of an HLR **and** a DHLR personal to a user. Further, it is unclear how the broadest interpretation of Gentry can be morphed into the claimed limitations of DHLR directly coupled to the user via a mobile device. It is clear that even the broadest interpretation of the teachings of Gentry do remotely come close to disclosing the Appellant’s claimed limitations.

For at least the above reasons, Gentry does not anticipate the invention recited in any of claims 2-8, 11-17, and 21. Accordingly, Appellant respectfully requests the withdrawal of the §102 rejection of claims 2-8 and 11-17.

The rejection in question can only be based upon a hindsight reconstruction enlightened by Appellants’ own disclosure. As the CAFC stated in W.L Gore Associates, Inc. v. Garlock, Inc. (220 USPQ 303, 312-13 (Fed. Cir. 1983)):

To imbue one of ordinary skill in the art with knowledge of the invention in suit, where no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

Accordingly, as Mizell does not teach, suggest, or otherwise disclose each and every element of the claims, Appellants’ respectfully request that the Section 102(e) rejections be withdrawn.

35 U.S.C. § 103

Claims 4 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gentry in view of Torabi (U.S. Patent No. 6,754,482, hereinafter Torabi). Claims 9-10 and 18-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gentry in view of well known prior art. Appellant respectfully traverses this rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. Of course, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Appellant's disclosure. Appellant respectfully submits that the Examiner has not met all of the above criteria.

For the reasons set forth in the preceding section of this paper, Gentry fails to teach or suggest a number of the limitations recited in Appellant's independent claims and, therefore, the proposed modification of Gentry does not teach or suggest all of the recited claim limitations. Notably, the §103 rejection appears to be based upon a persistent mischaracterization of Gentry, namely, the assumption that Gentry discloses a DHLR in the first place, that Gentry discloses a DHLR directly coupled to the user via a mobile device, and that Gentry discloses a foreign VLR that is coupled to a DHLR as recited in Appellant's claims. As mentioned in the previous section, Gentry simply does not teach a DLHR as required by the claims. Even assuming, for the sake of argument, that the Gentry personal computer 48 is equivalent to the recited DHLR, the personal computer 48 is NOT coupled to the foreign VLR 20 (see FIG. 2 of Gentry). Indeed, the personal computer 48 has no need to communicate with the foreign VLR 20.

For at least the above reasons, Appellant submits that the Examiner has not established a *prima facie* case of obviousness with respect to any of claims 4, 9, 10, 14, 18, or 19. Accordingly, these claims are not unpatentable over Gentry and Appellant requests the withdrawal of the §103 rejection of these claims.

Summary

Appellants therefore pray for the reversal of the final rejection and the allowance of the subject application.


Respectfully submitted,

SEND CORRESPONDENCE TO:

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IX. APPENDIX

1. (Canceled)

2. The system as claimed in claim 21, wherein the DHLR is not located at a telecommunication services provider.

3. The system as claimed in claim 2, wherein there is further included a plurality of users, each user of the plurality of users having a DHLR indicating which services are available to each user.

4. The system as claimed in claim 3, wherein the first network HLR for a particular user includes a pointer to the DHLR for the particular user.

5. The system as claimed in claim 21, wherein the second network HLR is configured for generating a message requesting approval of the agreement by the DHLR of the user.

6. The system as claimed in claim 21, wherein the DHLR includes means for generating a message requesting approval of the agreement by a mobile device of the user.

7. The system as claimed in claim 21, wherein the DHLR includes a computing device.

8. The system as claimed in claim 21, wherein the communication network includes an internet connection between the DHLR and the VLR.

9. The system as claimed in claim 21, wherein the communication network includes a wireless connection between the DHLR and the VLR.

10. The system as claimed in claim 21, wherein the communication network includes a wire line connection between the DHLR and the VLR.

11. An arrangement for services in a foreign network by a user of a home network comprising:

the home network including:

a first network home location register (HLR) coupled to a communication system;

and

a distributed home location register (DHLR) for storing a list of the services required by the user, said DHLR being directly coupled to the user via a mobile device;

the foreign network including:

a visitor location register (VLR) for determining an agreement for the services which are needed by the user in the foreign network; and

a second network HLR coupled to the communication system;

a mobile device of the user coupled to the foreign network for approving the agreement for the services; and

a communication network for coupling the DHLR and the mobile device to the foreign network.

12. The arrangement as claimed in claim 11, wherein the DHLR is not located at a telecommunication services provider.

13. The arrangement as claimed in claim 12, wherein there is further included a plurality of users, each user of the plurality of users having a DHLR indicating which services are available to each user.

14. The arrangement as claimed in claim 13, wherein the first network HLR for a particular user includes a pointer to the DHLR for the particular user.

15. The arrangement as claimed in claim 11, wherein the DHLR includes means for requesting approval of the agreement by the mobile device.

16. The arrangement as claimed in claim 11, wherein the distributed home location register (DHLR) includes a computing device.

17. The arrangement as claimed in claim 11, wherein the communication network includes an internet connection between the DHLR and the foreign network.

18. The arrangement as claimed in claim 11, wherein the communication network includes a wireless connection between the DHLR and the foreign network.

19. The arrangement as claimed in claim 11, wherein the communication network includes a wire line connection between the DHLR and the foreign network.

20. (Canceled)

21. A mobile communication system comprising:
a communication network;
a home network coupled to the communication network; and
a foreign network coupled to the communication network;
the home network comprising a first network home location register (HLR) coupled to the communication network, and comprising a distributed home location register (DHLR) including data for authorizing services in the foreign network for a user of said home network, the DHLR being personally associated with the user;
said foreign network comprising a visitor location register (VLR) coupled to the DHLR via the communication network, the VLR being configured for determining an agreement for the services which are needed by the user in the foreign network, and comprising a second network HLR coupled to the communication network.